REMARKS

Claims 1 to 3, 6, 8 to 10, 14, 15, 17, 19, 20, 22, 24 to 31, and 63 to 74 as amended are present for purposes of prosecution.

Reconsideration of the rejection of this application is respectfully requested in view of the above amendments and the following remarks.

Applicants note with appreciation that Claims 28 to 30 have been allowed.

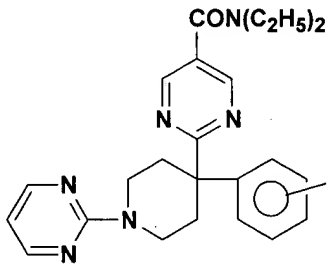
Claim 1 has been amended to define the imidazole group as being attached at its 4- or 5-position to the ring. Basis is found in all examples where Z is imidazole. In addition, Claim 1 has been amended to delete thiazole and oxazole from the definition of Z.

In view of the above amendments, it is believed that Applicants' invention as claimed is patentable over all cited references.

Claims 75, 76 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Liras et al., Chem. Abstract 133:222737.

Claims 75 and 76 have been cancelled. Thus, Claim 2 is the only claim rejected under 35 USC 102(e).

The Liras compounds have the structure



(or other heteroaryl)

All of the Liras compounds include the 5-pyrimidinecarboxamide group (which is equivalent to a Z group in Applicants' compounds). In applicants, the Z group is defined in Claims 1 and 64 wherein Z does not include a pyrimidinecarboxamide moiety.

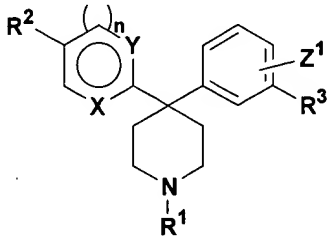
It is submitted that in view of the fact that Applicants' compounds as claimed in Claim 2 do not include a pyrimidinecarboxamide moiety, Applicants' compounds as defined in Claim 2 are not adapted by Liras.

Furthermore, it is submitted that Applicants' compounds as defined in Claim 2 are patentable over Liras. Liras only discloses compounds having a pyrimidinecarboxamide moiety.

There is no disclosure or suggestion in Liras of Applicants' Claim 2 compounds wherein Z is as defined in Claim 2. Thus, the very essence of Applicants' compounds of Claim 2 is different from and unobvious from Liras. Accordingly, it is submitted that Claim 2 is patentable over Liras.

In the Liras abstract, U.S. Patent No. 6,444,679 to Liras et al. is disclosed.

Liras et al. discloses compounds having the structure



(where R^2 is H, aryl, halo, heteroaryl, heterocyclic, SO_2R^4, COR^4, $CONR^5R^6$ or $C(OH)R^5R^6$) where in the ring which is equivalent to Applicants' Z heteroaryl group, X and Y, independently, can be O, N, S or CH. Thus, the Liras et al. heteroaryl ring covers oxazole, thiazole and imidazole-2-yl, that is imidazole, attached at its 2-position to the piperidine ring.

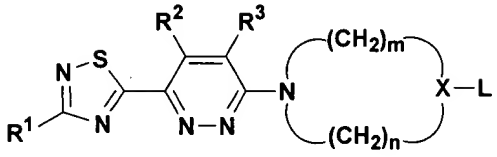
It is submitted that Applicants' compounds as claimed in Claim 2 are patentable over Liras et al. Applicants' compounds include a Z heteroaryl substituent which does not encompass any of the equivalent Z groups of Liras et al. There is nothing in Liras et al. which would motivate one skilled in the art to replace the equivalent Z group covered by Liras et al. with any of the Z groups covered in Claim 2. Accordingly, it is submitted that Claim 2 is unobvious from Liras et al. and therefore patentable over Liras et al.

Claims 1 to 3, 6, 8 to 10, 14, 15, 17, 22, 24 to 27, 31 and 63 to 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokbroekx et al. (WO 97/26258). The Examiner contends that Stokbroekx et al.

> "teaches a generic group of compounds which embraces applicant's instantly claimed compounds. See formula I, page 2 wherein X can be CH, and L represents L1, L2, L3 wherein L3 is Het and Het is defined as a monocyclic heterocycle such as pyrrolyl, pyrazolyl, furanyl, thienyl, oxazolyl, pyrimidinyl, etc. . . . Compound 122 on page 22 differs from the instantly claimed compounds only in the nature of X which is a nitrogen. However, the reference teaches the equivalence of nitrogen and a carbon atom . . . ."

It is submitted that Applicants' compounds as now claimed are patentable over Stokbroekx et al.

Stokbroekx et al. discloses compounds of the structure



It can be seen that in the Stokbroekx et al. compounds the equivalent of Applicants' R^1 group is

which is an essential part of these compounds (that is pyridazinyl). Applicants have now amended the definition of R^1 in the claims so that it no longer includes pyridazinyl moiety. There is no disclosure or suggestion in Stokbroekx et al. which would motivate one skilled in the art to modify the Stokbroekx et al. compounds to replace the  moiety with any of the Applicants' R^1 groups as claimed.

In view of the above difference between Applicants' compounds as now claimed and the compounds of Stokbroekx et al., which difference is unobvious, it is submitted that Applicants' compounds as claimed are patentable over Stokbroekx et al.

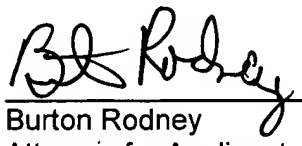
Claims 1 to 3, 6, 8 to 10, 14, 15, 17, 19, 20, 22, 24 to 27, 31 and 63 to 76 are rejected under 35 U.S.C. 112, first paragraph. The Examiner objects to the term "prodrug". Basis for the term "prodrug" is found in the specification at page 21, lines 1 to 6. The references there mentioned provide sufficient teachings to support use of this term.

Claims 14, 22, 24, 69, 73 and 76 are rejected under 35 U.S.C. 112, second paragraph. The Examiner contends that these claims "recite the limitation of a zigzag symbol. There is insufficient antecedent basis for this limitation in the claim."

Claims 14, 22, 24, 69 and 73 have been amended to delete the zigzag symbol.

In view of the foregoing, it is believed that all formal objections have been overcome. In addition, it is submitted that Claims 1 to 3, 6, 8 to 10, 14, 15, 17, 19, 20, 22, 24 to 31 and 63 to 74 are patentable over all cited references each taken singly or in any combination. Accordingly, a prompt allowance of this application is believed to be in order and such action is respectfully requested.

Respectfully submitted,



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